Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Currently Amended) A method for detecting specifically an allele of a pharmacogenetically relevant gene involved in drug metabolism in a sample, said allele comprising a target nucleotide sequence that is unique to said allele, said method comprising the steps of:

(a) contacting said sample with a nucleic acid probe under differential hybridization conditions that allow said nucleic acid probe to hybridize specifically to a nucleic acid molecule in said sample, wherein said nucleic acid molecule comprises a target nucleotide sequence, and wherein either said nucleic acid probe or said nucleic acid molecule is labeled with one or more scattered-light detectable particles of a size between 1 and 500 nm inclusive, thereby forming hybridized nucleic acid molecules that are labeled;

(b) illuminating said one or more scattered-light detectable particles bound to said hybridized nucleic acid molecules using white light, with the proviso that the white light is not [[~~non~~]] evanescent wave light, under conditions which produce scattered light from said one or more scattered-light detectable particles and in which light scattered from said one or more scattered-light detectable particles can be detected by a human eye with less than 500 times magnification and without electronic amplification; and

(c) detecting light scattered by said one or more scattered-light detectable particles under said conditions ~~which indicates~~ as indicative of the presence of said allele in said sample.

Claim 2. (Previously presented): The method of claim 1, further comprising the step of amplifying a portion of said nucleic acid molecule in said sample, and contacting the amplified nucleic acid molecule with said nucleic acid probe.

Claim 3. (Previously presented): The method of claim 1, wherein said nucleic acid probe (i) is not labeled with scattered-light detectable particles and (ii) is a capture probe that is immobilized on a solid surface, and wherein said nucleic acid molecule comprising said target nucleotide sequence is labeled with scattered-light detectable particles.

Claim 4. (Previously presented): The method of claim 1, further comprising contacting the sample with a capture probe (i) that is immobilized on a solid surface and (ii) that hybridizes to said nucleic acid molecule comprising said target nucleotide sequence, wherein said nucleic acid molecule is not labeled with scattered-light detectable particles, and wherein said nucleic acid probe is labeled with scattered-light detectable particles.

Claim 5. (Previously presented): The method of claim 3, wherein said contacting the sample with a nucleic acid probe comprises contacting the sample with a plurality of different nucleic acid probes that differentially hybridize to different alleles of said pharmacogenetically relevant gene involved in drug metabolism.

Claim 6. (Previously presented): The method of claim 5, wherein said plurality of different nucleic acid probes are immobilized at different spots on a solid surface.

Claims 7-8. (Canceled).

Claim 9. (Previously presented): The method of claim 1, further comprising labeling said nucleic acid probe or said nucleic acid molecule that comprises said target nucleotide sequence by incorporating a moiety that provides an attachment site and/or a cleavage site.

Claims 10-58. (Canceled).

Claim 59. (Previously presented): The method of claim 9, wherein said labeling involves polymerase chain reaction, random-prime labeling, nick-translation, biased random-prime labeling, primer extension, extension displacement transcription incorporation, ligase chain reaction, ligation of multiple oligomers amplification, rolling circle amplification, strand displacement amplification, or transcription-mediated amplification.

Claim 60. (Previously presented): The method of claim 9, wherein said incorporated moiety is a modified nucleotide.

Claim 61. (Previously presented): The method of claim 9, wherein said incorporated moiety is a hapten-derivatized nucleotide or bromodeoxyuridine.

Claim 62. (Previously presented): The method of claim 61, wherein said incorporated moiety is a hapten-derivatized nucleotide, and wherein said hapten-derivatized nucleotide is derivatized with biotin, fluorescein, digoxigenin, or dinitrophenol.

Claim 63. (Previously presented): The method of claim 9, wherein said labeling further comprises attaching said scattered-light detectable particles to said nucleic acid probe or said nucleic acid molecule comprising said target nucleotide sequence.

Claim 64. (Previously presented): The method of claim 61, wherein said labeling further comprises attaching scattered-light detectable particles that are derivatized with anti-hapten antibodies or anti-bromodeoxyuridine antibodies to said nucleic acid probe or said nucleic acid molecule comprising said target nucleotide sequence.

Claim 65. (Previously presented): The method of claim 62, wherein said labeling further comprises attaching scattered-light detectable particles that are derivatized with avidin or streptavidin to said nucleic acid probe or said nucleic acid molecule comprising said target nucleotide sequence.

Claim 66. (Currently amended): The method of claim 64, wherein said incorporated moiety is bromodeoxyuridine, and wherein said nucleic acid molecule that comprises said target nucleotide sequence ~~are~~ is fragmented prior to hybridization with said nucleic acid probe.

Claim 67. (Previously presented): The method of claim 59, wherein said labeling comprises using one or more primers that is a gene-specific primer or an allele-specific primer.

Claim 68. (Previously presented): The method of claim 4, wherein said contacting the sample with a capture probe comprises contacting the sample with a plurality of different capture probes that differentially hybridize to different alleles of said pharmacogenetically relevant gene involved in drug metabolism.

Claim 69. (Previously presented): The method of claim 68, wherein said contacting the sample with a capture probe comprises contacting the sample with a plurality of different capture probes that are immobilized at different spots on a solid surface.

Claim 70. (Previously presented) : The method of claim 1, wherein the pharmacogenetically relevant gene involved in drug metabolism encodes a cytochrome P450 protein.

Claim 71. (Previously presented) : The method of claim 1, wherein the pharmacogenetically relevant gene involved in drug metabolism is a member of the CYP2D family.

Claims 72-74. (Canceled).